



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,657	09/25/2003	Steven David Dunwoody	18061 (AT 20958-2114)	8366

7590 05/27/2004

Robert Kapalka
Tyco Electronics Corporation
Suite 140
4550 New Linden Hill Road
Wilmington, DE 19808

EXAMINER

HAMMOND, BRIGGITTE R

ART UNIT	PAPER NUMBER
----------	--------------

2833

DATE MAILED: 05/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. **10/670,657**Applicant(s) **DUNWOODY, STEVEN DAVID**Examiner **Brigitte R. Hammond**Art Unit **2833**

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/25/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-10, 12-16 and 18-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Gutierrez 6,585,540. Gutierrez discloses a modular receptacle jack 200 comprising:

a housing 33 comprising a jack interface (at 212) and an exterior surface (not numbered for sitting atop 260); and a shield 260 extending over at least a portion of said exterior surface, said shield comprising an interior face and an exterior face; and a plurality of magnetic components 230 electrically coupled to said exterior face for suppressing EMI/RFI.

Regarding claim 2, said receptacle jack is an RJ-45 jack.

Regarding claims 3 and 4, at least some of said magnetic components 230 comprise a transformer element or capacitor (see col. 13, line 50-55).

Regarding claim 5, said shield comprises a printed circuit board.

Regarding claim 6, said shield said shield comprises a printed circuit board comprising a ground 266.

Regarding claim 7, said jack further comprising a conductive shell 272 surrounding at least a portion of said jack, said shield coupled to said conductive shell.

Regarding claim 8, Gutierrez discloses a modular receptacle jack, comprising; a housing 202 comprising a jack receptacle and a plurality of signal contacts 220a within said receptacle, and a shield 260 extending over an outer surface of said housing, said shield 260 comprising a printed circuit board and a plurality of magnetic components 230 coupled to a surface of said printed circuit board for suppressing EMI transmission by said contacts.

Regarding claim 9, Gutierrez discloses said shield comprises opposite surfaces, and a conductive path extending from one of said surfaces to the other of said surfaces of said printed circuit board, as shown in fig. 6.

Regarding claim 10, Gutierrez discloses said contacts being electrically coupled to an inner surface of said printed circuit board ~~plane (see col. 10, lines 1-10)~~.

Regarding claim 12, Gutierrez discloses said receptacle jack is an RJ-45 jack (see col. 2, lines 55-60).

Regarding claim 13, Gutierrez discloses a modular receptacle jack comprising: a housing 202 comprising a jack receptacle and a plurality of signal contacts 220a within said receptacle; and a shield 260 extending over an outer surface of said housing, said shield comprising a printed circuit board having at least one aperture therethrough for passage of a signal conductor, and at least one magnetic component 230 coupled to a

surface of said printed circuit board adjacent said aperture for suppressing EMI transmission therethrough.

Regarding claim 14, Gutierrez discloses said shield 260 comprises opposite surfaces, said signal conductor extending from one of said surfaces to the other of said surfaces of said printed circuit board (as shown in fig. 2d).

Regarding claim 15, Gutierrez discloses said shield 260 comprises a plurality of apertures and signal conductors corresponding to each of said signal contacts, each of said signal contacts electrically coupled to one of said signal conductors.

Regarding claim 16, Gutierrez discloses a plurality of magnetic components 230 coupled to a surface of said shield, said magnetic components suppressing EMI/RFI transmission through each of said plurality of signal conductors.

Regarding claim 18, Gutierrez discloses said receptacle jack is an RJ-45 jack.

Regarding claim 19, Gutierrez discloses said modular jack further comprising a conductive shell 272 surrounding a portion of said housing, said shield 260 coupled to said conductive shell 272.

Regarding claim 20, Gutierrez discloses said modular jack further comprising a conductive shell 272 surrounding a portion of said housing, said shell having ground fingers 277 electrically contacting said shield.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gutierrez et al. in view of Belopolsky 6036547. Gutierrez et al. discloses the invention substantially as claimed. Gutierrez et al. do not disclose said contacts being arranged in differential pairs. However, Belopolsky disclose contacts being arranged in differential pairs to reduce cross-talk (see col. 2, lines 35-45). Therefore, it would have been obvious to one of ordinary skill to modify the jack of Gutierrez et al. by arranging the contacts in differential pairs to reduce cross-talk as taught by Belopolsky.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Scharf et al. 6,431,764, Chang 6,328,595 and 6,234,847 were cited for similar jacks.

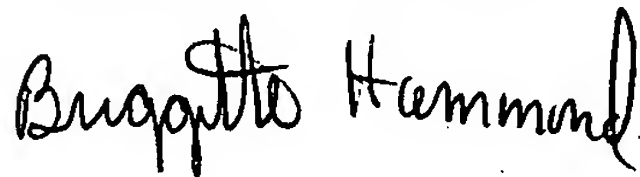
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brigitte R. Hammond whose telephone number is 571-272-2006. The examiner can normally be reached on Monday-Thursday and Alternate Fridays from 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A Bradley can be reached on 571-272-2800 ext. 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2833

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brigitte R. Hammond

A handwritten signature in cursive script that reads "Brigitte Hammond".

May 14, 2004